

Title (en)

Bit-rate-independent optical cross-connect device in optical transmission system

Title (de)

Bitratenunabhängiger optischer Querverbinder in einem optischen Übertragungssystem

Title (fr)

Commutateur optique indépendant du débit binaire dans un système de transmission optique

Publication

EP 1189477 A2 20020320 (EN)

Application

EP 01120811 A 20010829

Priority

KR 20000054478 A 20000916

Abstract (en)

In an optical transmission system including a demultiplexer for demultiplexing an input optical signal into optical signals respectively corresponding to different channels, and a multiplexer for multiplexing the optical signals outputted from the demultiplexer, a bit-rate-independent optical cross-connect device including N BICDR (Bit Rate Independent Clock and Data Recovery) receivers each for receiving an associated one of the optical signals outputted from the demultiplexer, converting the associated optical signal into an electrical signal, and reproducing clocks and data from the associated optical signal, based on a bit rate of the electrical signal, a switchboard including a cross-connect switch for receiving respective output signals from the N BICR receivers, N bit rate discriminating units for receiving the output signals from the N BICR receivers, respectively, thereby outputting bit rate discriminating signals respectively associated with the N BICR receivers, and a temperature sensing unit for outputting a temperature sensing signal, and a central processing unit for receiving the bit rate discriminating signals from the N bit rate discriminating unit, along with the temperature sensing signal from the temperature sensing unit, comparing each of the received bit rate discriminating signals with a temperature-dependent bit rate value read out, based on the temperature sensing signal, from a memory, thereby discriminating whether or not there is a variation in bit rate, and controlling the bit rate of the associated BICDR receiver, based on the result of the discrimination.

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